

PERVASIVE, USER-CENTRIC NETWORK SECURITY ENABLED BY DYNAMIC DATAGRAM SWITCH AND AN ON-DEMAND AUTHENTICATION AND ENCRYPTION SCHEME THROUGH MOBILE INTELLIGENT DATA CARRIERS

ABSTRACT

[0155] Methods and systems are provided for improving access control, administrative monitoring, reliability, as well as flexibility of data transmission and remote application sharing over a network. Secure, stable network connections and efficient network transactions among multiple users are supported by an open and distributed client-server architecture. A datagram schema is adapted to enable dynamic datagram switching in support of a multitude of applications and network services. Mobile intelligent data carriers are provided that allow for the implementation of an authentication and encryption scheme. The intelligent data carriers are adapted to target deliver applications to authorized users, thereby achieving access control to not only data but also applications. The authentication and encryption scheme in one embodiment is based on physical or performance biometrics. The methods and systems of this disclosure may be advantageously deployed in an enterprise network environment to support a wide spectrum of business, research, and administrative operations.